STIC Search Report
EIC 2800

STIC Database Tracking Number: 155042

TO: Dave Ghatt **Location: JEF-9A39** **Art Unit : 2854** **Thursday, June 02, 2005** **Case Serial Number: 09/620040**	**From: Irina Speckhard** **Location: EIC 2800** **JEFF-4B59** **Phone: (571) 272-2554** **irina.speckhard@uspto.gov**

Search Notes

Examiner Ghatt,

Please find attached prior-art search results from the patent and non-patent abstract and full-text databases. The results were based on claims and statements of technical problems and solutions. Tagged records might be worth your review as well as the rest of the references provided.

If you need further searching or have questions or comments, please let me know.

Thank you,

Irina Speckhard

155042

SEARCH REQUEST FORM Scientific and Technical Information Center - EIC2800

Rev. 3/15/2004 This is an experimental format -- Please give suggestions or comments to Jeff Harrison, JEF-4B68, 272-2511.

Date 5/31/05 Serial # 09/626,040 Priority Application Date _____

Your Name Dave Ghatt Examiner # _____

AU 2854 Phone 22165 Room 9A39

In what format would you like your results? Paper is the default. (PAPER) DISK EMAIL

If submitting more than one search, please prioritize in order of need.

The EIC searcher normally will contact you before beginning a prior art search. If you would like to sit with a searcher for an interactive search, please notify one of the searchers.

Where have you searched so far on this case?

Circle: USPT DWPI EPO Abs JPO Abs IBM TDB

Other: _____

What relevant art have you found so far? Please attach pertinent citations or Information Disclosure Statements. _____

What types of references would you like? Please checkmark:

Primary Refs ____ Nonpatent Literature ___ Other _____

Secondary Refs ___ Foreign Patents ____

Teaching Refs ___

What is the topic, such as the **novelty**, motivation, utility, or other specific facets defining the desired **focus** of this search? Please include the concepts, synonyms, keywords, acronyms, registry numbers, definitions, structures, strategies, and anything else that helps to describe the topic. Please attach a copy of the abstract and pertinent claims.

Claim 10 (Attached) Please Call.

Staff Use Only

Searcher: Speed Card

Searcher Phone: _____

Searcher Location: STIC-EIC2800, JEF-4B68

Date Searcher Picked Up: 6/2/05

Date Completed: _____

Searcher Prep/Rev Time: 30

Online Time: 120

Type of Search

Structure (#) _____

Bibliographic ✓

Litigation _____

Fulltext ✓

Patent Family ✓

Other all.

Vendors

STN _____

Dialog ✓

Questel/Orbit _____

Lexis-Nexis _____

WWW/Internet _____

Other _____

STIC Search Results Feedback Form

3

EIC 2800

Questions about the scope or the results of the search? Contact ***the EIC searcher or contact*:**

Jeff Harrison, EIC 2800 Team Leader
571-272-2511, JEF 4B68

Voluntary Results Feedback Form

- *I am an examiner in Workgroup:* ☐ *Example: 2810*
- *Relevant prior art **found**, search results used as follows:*
  - ☐ 102 rejection
  - ☐ 103 rejection
  - ☐ Cited as being of interest.
  - ☐ Helped examiner better understand the invention.
  - ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature
  (journal articles, conference proceedings, new product announcements etc.)

- *Relevant prior art **not found**:*
  - ☐ Results verified the lack of relevant prior art (helped determine patentability).
  - ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to STIC EIC2800, CP4-9C18

```
SYSTEM:OS  - DIALOG OneSearch
  File   2:INSPEC 1969-2005/May W4
         (c) 2005 Institution of Electrical Engineers
  File   6:NTIS 1964-2005/May W4
         (c) 2005 NTIS, Intl Cpyrght All Rights Res
  File   8:Ei Compendex(R) 1970-2005/May W3
         (c) 2005 Elsevier Eng.  Info. Inc.
  File  34:SciSearch(R) Cited Ref Sci 1990-2005/May W5
         (c) 2005 Inst for Sci Info
  File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
         (c) 1998 Inst for Sci Info
  File  35:Dissertation Abs Online 1861-2005/May
         (c) 2005 ProQuest Info&Learning
  File  65:Inside Conferences 1993-2005/May W5
         (c) 2005 BLDSC all rts. reserv.
  File  94:JICST-EPlus 1985-2005/Apr W2
         (c)2005 Japan Science and Tech Corp(JST)
  File  99:Wilson Appl. Sci & Tech Abs 1983-2005/Apr
         (c) 2005 The HW Wilson Co.
  File 144:Pascal 1973-2005/May W4
         (c) 2005 INIST/CNRS
  File 305:Analytical Abstracts 1980-2005/May W4
         (c) 2005 Royal Soc Chemistry
*File 305: Alert feature enhanced for multiple files, duplicate
removal, customized scheduling.  See HELP ALERT.
  File 315:ChemEng & Biotec Abs 1970-2005/May
         (c) 2005 DECHEMA
  File 350:Derwent WPIX 1963-2005/UD,UM &UP=200534
         (c) 2005  Thomson Derwent
*File 350: For more current information, include File 331 in your search.
Enter HELP NEWS 331 for details.
  File 347:JAPIO Nov 1976-2005/Jan(Updated 050506)
         (c) 2005 JPO & JAPIO
  File 344:Chinese Patents Abs Aug 1985-2005/May
         (c) 2005 European Patent Office
  File 371:French Patents 1961-2002/BOPI 200209
         (c) 2002 INPI.  All rts. reserv.
*File 371: This file is not currently updating. The last update is 200209.
```

Set	Items	Description
S1	93132	PRINT?(2N)(IMAG? OR SUBSTRAT?)
S2	1001	(OVERSIZE? OR OVER()SIZE? OR LARGE()SIZE?)(2N)(IMAG? OR BANNER? ? OR POSTER? ?)
S3	231642	(PRINT? OR SMALL??? OR LITTLE OR SEPARAT?)(2N)(SEGMENT? ? OR PART? ? OR PARTITION? ? OR PORTION? ? OR DEVISION? ? OR SUBDIVISION? ? OR PAGES? ? OR PIECE? ?)
S4	61579	(ASSEMBL? OR PUT OR ADD OR UNITE??)(2N)(SEGMENT? ? OR PART? ? OR PARTITION? ? OR PORTION? ? OR DEVISION? ? OR SUBDIVISION? ? OR PAGES? ? OR PIECE? ?)
S5	61	S1 AND S2
S6	4	S5 AND S3
S7	3	RD (unique items)
S8	57	S5 NOT S6
S9	0	S8 AND S4
S10	2666	S3 AND S4
S11	0	S10 AND S2
S12	14	S10 AND (OVERSIZE? OR OVER()SIZE? OR LARGE()SIZE?)
S13	13	RD (unique items)
S14	2652	S10 NOT S12
S15	333	S14 AND PRINT?
S16	35	S15 AND (IMAG? OR BANNER? ? OR POSTER? ?)
S17	2	S16 AND LARGE
S18	2	RD (unique items)
S19	33	S16 NOT S17
S20	33	RD (unique items)
S21	2523	PRINT? AND (OVERSIZE? OR OVER()SIZE? OR LARGE()SIZE?)
S22	901	S21 AND (SEGMENT? ? OR PART? ? OR PARTITION? ? OR PORTION? ? OR DEVISION? ? OR SUBDIVISION? ? OR PAGES? ? OR PIECE? ?)
S23	48	S22 AND ASSEMBL?
S24	47	S23 NOT S6,S12,S16

7/3,AB/1 (Item 1 from file: 2)
DIALOG(R)File 2:INSPEC

5704682 INSPEC Abstract Number: C9711-5260B-141
Title: Fast address block location on handwritten and machine **printed** mail-**piece** **images**
Author(s): Wolf, M.; Niemann, H.; Schmidt, W.
Author Affiliation: Bavarian Res. Center for Knowledge Based Syst., Erlangen, Germany
Conference Title: Proceedings of the Fourth International Conference on Document Analysis and Recognition (Cat. No.97TB100138) Part vol.2 p. 753-7 vol.2
Publisher: IEEE Comput. Soc, Los Alamitos, CA, USA
Publication Date: 1997 Country of Publication: USA 2 vol. xxiv+1119 pp.
ISBN: 0 8186 7898 4 Material Identity Number: XX97-02265
U.S. Copyright Clearance Center Code: 0 8186 7898 4/97/$10.00
Conference Title: Proceedings of the Fourth International Conference on Document Analysis and Recognition
Conference Sponsor: Int. Assoc. Pattern Recognition (IAPR), TC 10 & 11; Int. Graphonomics Soc. (IGS); German Assoc. Comput. Sci. (GI); German Assoc. Inf. Technol. (ITG)
Conference Date: 18-20 Aug. 1997 Conference Location: Ulm, Germany
Language: English
Abstract: We present a fast approach for the detection of address blocks on **images** of **oversized** flat mail-pieces with a size up to 35*25 cm. In contrast to standard size envelopes the position of the address block cannot be restricted to the lower right region of the mail-piece. Furthermore the envelopes are mixed up with advertising, the return address, logos and other noise making the detection more complicated. In addition, for usage in a practical mail sorting system the recognition of the address block has to be accomplished within 200 ms for handwritten and machine printed addresses. In this approach a method based on the detection of inhomogeneous blocks is described. The image of the envelope is divided into small rectangular blocks for which a measure of homogeneity is evaluated. After determining an adaptive threshold inhomogeneous blocks are detected in a hierarchical search process. Adjacent inhomogeneous blocks are then merged to areas of arbitrary shapes. These areas are represented by the smallest enclosing rectangle. Several features are calculated for each area and a plausibility test is performed. The best scored area is assumed to contain the address block and is passed to an optical character recognition system. This approach meets the above mentioned time constraint on an i-860 based computer and has an excellent reliability.
Subfile: C

7/3,AB/2 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX

009980846
WPI Acc No: 1994-248560/199430
XRPX Acc No: N94-196364
Image reproduction machine expanded area printing - feeding folded sheet front end portion first through machine for **printing** first **portion** and re-feeding folded sheet in flipped orientation for **printing** second **portion**
Patent Assignee: COMPAQ COMPUTER CORP (COPQ)

Inventor: SELLERS C A
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 5335005	A	19940802	US 92851848	A	19920316	199430	B

Priority Applications (No Type Date): US 92851848 A 19920316
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 5335005	A		9	G01D-015/04	

Abstract (Basic): US 5335005 A

The method involves the steps of: transmitting the **oversized image** to the machine, then folding the oversized sheet to form therefrom a folded sheet having a front end edge portion, a rear end portion, a side fold edge portion, and first outer side surface and second outer side surfaces opposite the first outer side surface.

The method also entails feeding the folded sheet, front end portion first, through the machine and concurrently causing the machine to imprint a first portion of the received **oversized image** upon the first outer side surface of the folded sheet and then re-feeding the folded sheet, in a flipped orientation, through the machine and concurrently causing the machine to imprint a second portion of the received **oversized image** upon the second outer side surface of the folded sheet.

USE/ADVANTAGE - In image reproduction appts, e.g. printers and copiers, pref to paper feed and image imprinting control aspect. Provision for laser **printer** to **print image** larger than size of paper.

Dwg.1/6

7/3,AB/3 (Item 1 from file: 347)
DIALOG(R)File 347:JAPIO

04971756
ADJUSTING METHOD FOR PRINT HEAD

PUB. NO.: 07-264356 [JP 7264356 A]
PUBLISHED: October 13, 1995 (19951013)
INVENTOR(s): OTAKI NOBORU
YOSHIDA KAZUYOSHI
INOUE HIROYUKI
OGATA HIDEICHIRO
APPLICANT(s): OKI ELECTRIC IND CO LTD [000029] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 06-050608 [JP 9450608]
FILED: March 22, 1994 (19940322)

ABSTRACT

PURPOSE: To obtain a device preventing the generation of a non-**printing part** and **printing** deviation when plural print heads are used and **printing** an **image** on a **large-size** display medium.

CONSTITUTION: Plural print heads 8a to 8d outputting images to a display medium 1 are arranged alternately in a scanning direction and in a zigzag shape. By printing reference lines on the display medium 1 by each of print heads 8a to 8d and reading these reference lines by an image sensor 29, the

deviation amount of the reference lines from the reference locations in the horizontal scanning direction and the vertical scanning direction is investigated. Based on the deviation amount, the data transfer timing to the plural print heads 8a to 8d is controlled. Thus, the printing deviation of the horizontal scanning and vertical scanning directions of the plural print heads 8a to 8d is automatically adjusted

18/3,AB/1 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX

007713297
WPI Acc No: 1988-347229/198849
XRPX Acc No: N88-263177
Photographic copy process for giant **prints** - has negative exposed in small areas to **assemble part prints** into **large** frame
Patent Assignee: FUJI PHOTO FILM CO LTD (FUJF)
Inventor: KOGANE M; OHTAKE K; SAKAMOTO K
Number of Countries: 002 Number of Patents: 003
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
DE 3817138	A	19881201	DE 3817138	A	19880519	198849	B
US 4897944	A	19900206	US 88196324	A	19880520	199012	
US 4959683	A	19900925	US 89435131	A	19891109	199041	

Priority Applications (No Type Date): JP 87150810 A 19870617; JP 87123053 A 19870520; JP 87146654 A 19870612
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
DE 3817138	A		22		
US 4897944	A		20		

Abstract (Basic): DE 3817138 A

The negative is exposed in a set pattern, with a set rectangle of the frame exposed at a time. The resulting number of **prints** are then assembled on a support base (2) to form a larger **print** out of the separate panels.

The panels are prepared in strips, either horizontal or vertical to the main picture. The strips are secured to support strips.

ADVANTAGE - **Large print** effect without using special enlarger, or special film.

1A/19

Abstract (Equivalent): US 4959683 A

The picture display comprises elemental **prints** having enlarged divisional **images** with separation arranged in a matrix on a **print** holder so as to form a single picture. A **printing** method and device for making the picture strips as the elemental **prints** from a single frame of an original film is also disclosed. The **printing** device has a **printing** stage movable in two directions perpendicularly intersecting each other so as to place divisions into which the **image** frame of the original film is notionally divided in a matrix in **printing** position for exposing a photographic paper to enlarged divisional the divisions in order by column or row, thereby making a picture strip with a row or aimages of column of the enlarged divisional **images** formed thereon.

(18pp)

US 4897944 A

A picture display comprises elemental **prints** having enlarged divisional **images** with separation arranged in a matrix on a **print** holder so as to form a single picture.

A **print** device is provided for making the picture strips as the elemental **prints** from a single frame of an original film. The **printing** device has a **printing** stage movable in two directions perpendicularly intersecting each other so as sequentially to place divisions into which the **image** frame of the original

film is notionally divided in a matrix in **printing** position for exposing a photographic paper to enlarged divisional **images** of the divisions in order by column or row, thus making a picture strip with a row or a column of the enlarged divisional **images** formed on it.
(20pp

18/3,AB/2 (Item 1 from file: 347)
DIALOG(R)File 347:JAPIO

05003170
NETWORK CONTROL SYSTEM

PUB. NO.: 07-295770 [JP 7295770 A]
PUBLISHED: November 10, 1995 (19951110)
INVENTOR(s): FUKADA YASUO
APPLICANT(s): CANON INC [000100] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 06-082005 [JP 9482005]
FILED: April 20, 1994 (19940420)

ABSTRACT

PURPOSE: To arbitrarily perform the display of desired information for which **large** -scaled storage capacity is required and the update of display contents in the **image** forming device of a network control system.

CONSTITUTION: In an **add**-on processing **part** 2511, the information on the designated character is read from a memory where character information is preliminarily stored and the information is outputted to a designated portion in place of an **image** signal. This final 8-bit digital signal is transmitted to a **printer part**, and a brightness part and a darkness part are reproduced on a photosensitive drum by tuning on/off a laser. The CPU of a control part transfers a paper jamming notification command to the CPU of an operation part and the command is stored in a ROM. For instance, th message character string corresponding to 'a paper jamming location' is extended to an LCD.

Priority Applications (No Type Date): DE 1037561 A 20000802
Patent Details:
Patent No Kind Lan Pg Main IPC Filing Notes
EP 1177820 A2 G 14 A63F-009/10
  Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR
DE 10037561 A1 A63F-009/08

Abstract (Basic): EP 1177820 A2
Abstract (Basic):
NOVELTY - The jigsaw puzzle (10) has four different jigsaw puzzles (12,14,16,18) incorporated within it, with structured interlocking projections and openings to take the pieces of the puzzles in a positive fit. The pieces of the puzzles have a surface with only one color and/or structure. A transparent grid sheet is laid over the original picture to identify the location of the **separate** puzzle **pieces** to form the picture of the puzzle. The puzzle pieces are of microcellular rubber or **printed** cardboard.
USE - The system is a jigsaw puzzle.
ADVANTAGE - The **image** of the jigsaw puzzle can be formed by using standardized puzzle pieces. The original picture can be enlarged or reduced to fit the puzzle format.
DESCRIPTION OF DRAWING(S) - The drawing shows a schematic view of the assembled jigsaw puzzle from four different basic puzzle pieces.
jigsaw puzzle assembly (10)
different jigsaw puzzles (12,14,16,18)
pp; 14 DwgNo 1/8

20/3,AB/7 (Item 5 from file: 350)
DIALOG(R)File 350:Derwent WPIX

014226983
WPI Acc No: 2002-047681/200206
Embossed hologram method
Patent Assignee: YOON C I (YOON-I)
Inventor: YOON C I
Number of Countries: 001 Number of Patents: 002
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
KR 2001056908	A	20010704	KR 9958581	A	19991217	200206	B
KR 353482	B	20020919	KR 9958581	A	19991217	200317	

Priority Applications (No Type Date): KR 9958581 A 19991217
Patent Details:
Patent No Kind Lan Pg Main IPC Filing Notes
KR 2001056908 A 1 G03H-001/04
KR 353482 B G03H-001/04 Previous Publ. patent KR 2001056908

Abstract (Basic): KR 2001056908 A
Abstract (Basic):
NOVELTY - An embossed hologram method is provided to represent an **image** as a relief, and process the **image** as a hologram.
DETAILED DESCRIPTION - A coarse rate of the surface of an object which will form a hologram is confirmed. A dust and an extraneous substance attached on the surface are removed. A special primer is **printed** to the object to be **printed**. A **part** to be **printed** is hardened in order to maintain the viscosity at a fixed

level. A hologram sheet is **put** to the **part** to be **printed**. A hot-stamping which paints a hologram layer on the **part printed** in the form of thermal fusion is performed. After that, the hologram layer is dried in a hot-air dryer about for 5-8 hours. A thermal hardening is performed.

pp; 1 DwgNo 1/10

20/3,AB/8 (Item 6 from file: 350)
DIALOG(R)File 350:Derwent WPIX

012782267
WPI Acc No: 1999-588493/199950
XRAM Acc No: C00-198724
XRPX Acc No: N00-486718

Ink spraying device for a **print** head, has ink heating portion with heating chamber, and ink spraying portion with an ink chamber

Patent Assignee: SAMSUNG ELECTRONICS CO LTD (SMSU)
Inventor: AHN B S; AHN B
Number of Countries: 002 Number of Patents: 003
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
KR 98065807	A	19981015	KR 97959	A	19970115	199950	B
US 6126272	A	20001003	US 987821	A	19980115	200064	
KR 225082	B1	19991015	KR 97959	A	19970115	200108	

Priority Applications (No Type Date): KR 97959 A 19970115
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
KR 98065807	A			B41J-002/235	
US 6126272	A		15	B41J-002/05	
KR 225082	B1			B41J-002/04	

Abstract (Basic): US 6126272 A
Abstract (Basic):

NOVELTY - An ink spraying device comprises a separately formed ink heating portion including a heating chamber, and a separately formed ink spraying portion including an ink chamber. The ink heating portion produces thermal energy in accordance with an applied electric energy. The ink spraying **portion** is **assembled** into the ink heating portion.

DETAILED DESCRIPTION - An ink spraying device comprises a separately formed ink heating portion including a heating chamber, and a separately formed ink spraying portion including an ink chamber. The ink heating portion produces thermal energy in accordance with an applied electric energy. The ink spraying **portion** is **assembled** into the ink heating portion. It includes a membrane layer formed of membranes (24) to separate the heating chamber from the ink chamber to form and eject ink droplets through a nozzle plate (21) in accordance with the produced thermal energy. One membrane forms an enclosing surface of the heating chamber and another membrane forms an enclosing surface of the ink chamber.

An INDEPENDENT CLAIM is also included for a method for forming an ink spraying device. The method includes forming separately an ink heating portion and ink spraying portion as above, and assembling the separately formed ink spraying **portion** into the **separately** formed ink heating portion.

USE - For use in **print** head.

ADVANTAGE - The invention is separately manufactured into an ink

on cap. The core is cut away (11) to accommodate the top cap (3), which has a truncated-cone base (14) and slits (17a,b) and is made as an incomplete circle. Channels (21) matching the key piece simplify the final assembly operation.

USE - In amusements, e.g. for advertising purposes.

ADVANTAGE - The form of the cylinder is that of a pull-cap can.

Dwg.5/5

20/3,AB/10 (Item 8 from file: 350)
DIALOG(R)File 350:Derwent WPIX

011322318
WPI Acc No: 1997-300222/199728
XRPX Acc No: N97-248066

Full width black and scanning colour heads for ink jet **printer** - has fixed full width black **print** head used to **print** monochrome **pages** and four colour scanning **print** head used on colour pages

Patent Assignee: XEROX CORP (XERO)
Inventor: DRAKE D J; HAWKINS W G; IMS D R; MARKHAM R G; REZANKA I
Number of Countries: 009 Number of Patents: 009
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 778151	A1	19970611	EP 96308602	A	19961128	199728	B
JP 9174827	A	19970708	JP 96319934	A	19961129	199737	
CA 2185603	A	19970608	CA 2185603	A	19960916	199741	
US 5710582	A	19980120	US 95569034	A	19951207	199810	
BR 9605902	A	19980818	BR 965902	A	19961206	199839	
EP 778151	B1	20000301	EP 96308602	A	19961128	200016	
DE 69606834	E	20000406	DE 606834	A	19961128	200024	
			EP 96308602	A	19961128		
ES 2142549	T3	20000416	EP 96308602	A	19961128	200026	
CA 2185603	C	20010102	CA 2185603	A	19960916	200104	

Priority Applications (No Type Date): US 95569034 A 19951207
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 778151	A1	E	8	B41J-003/54	
Designated States (Regional): DE ES FR GB IT					
JP 9174827	A		8	B41J-002/01	
CA 2185603	A			B41F-015/40	
US 5710582	A		8	B41J-002/155	
BR 9605902	A			B41J-029/00	
EP 778151	B1	E		B41J-003/54	
Designated States (Regional): DE ES FR GB IT					
DE 69606834	E			B41J-003/54	Based on patent EP 778151
ES 2142549	T3			B41J-003/54	Based on patent EP 778151
CA 2185603	C	E		B41J-002/525	

Abstract (Basic): EP 778151 A

The hybrid **printer** combines fixed and scanning **print** heads. The **printer** has a fixed, full width black **printhead** (10). It is formed from smaller **print** heads (10A) butted together. The paper (12) is moved perpendicular (11) to the head. A controller (42) supplies bit mapped **image** data to the **print** head.

In addition, the carriage (29) driven by a lead screw (30) and motor (31), supports another **print** head. It has four heads

(22-28) for black and three colours. The controller also supplies bit-mapped data to the heads and controls the positioning of the head. The **printer** determines from the input **image** data whether colour or monochrome is to be used and uses the appropriate **print** head.

USE/ADVANTAGE - For LAN system. Reduces costs of full colour **printers** and improves throughput of mixed mode **pages** and can **add** checkerboarding.

Dwg.1/3

Abstract (Equivalent): US 5710582 A

The hybrid **printer** combines fixed and scanning **print** heads. The **printer** has a fixed, full width black **printhead** (10). It is formed from smaller **print** heads (10A) butted together. The paper (12) is moved perpendicular (11) to the head. A controller (42) supplies bit mapped **image** data to the **print** head.

In addition, the carriage (29) driven by a lead screw (30) and motor (31), supports another **print** head. It has four heads (22-28) for black and three colours. The controller also supplies bit-mapped data to the heads and controls the positioning of the head. The **printer** determines from the input **image** data whether colour or monochrome is to be used and uses the appropriate **print** head.

USE/ADVANTAGE - For LAN system. Reduces costs of full colour **printers** and improves throughput of mixed mode **pages** and can **add** checkerboarding.

Dwg.2/3

20/3,AB/11 (Item 9 from file: 350)

DIALOG(R)File 350:Derwent WPIX

010949844

WPI Acc No: 1996-446794/199645

XRAM Acc No: C96-140468

XRPX Acc No: N96-376428

Film carrier with wastage removal function - has cloth roller with fibre provided in second cleaning appts which removes foreign material adhered over negative film

Patent Assignee: FUJI PHOTO FILM CO LTD (FUJF)

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
JP 8220648	A	19960830	JP 9522052	A	19950209	199645	B

Priority Applications (No Type Date): JP 9522052 A 19950209

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 8220648	A		13	G03B-027/62	

Abstract (Basic): JP 8220648 A

The carrier (10) comprises a magnetic head (140) which reproduces the recording information of the magnetic layer. The magnetic layer is adhered over a negative film. An **image printing part** (48) is provided in the downstream side of the film conveyance direction. The **printing part prints** the **image** with the help of light sensitive material. A first cleaning appts (200) is provided between the conveying roller (54A) and the magnetic head. Similarly, a second cleaning appts (202) is provided between

image printing part and sensor **assembly** (136).
A second sticking roller (208) is provided in the first cleaning appts, which cleans foreign material adhered on the surface of the magnetic layer.

The static of the second sticking roller is removed by a static removal brush (204). A first sticking roller (206) which removes foreign materials adhered on the magnetic track part, which is caused due to the adhesion of polyurethane material of the first cleaning appts. A second cleaning appts is equipped with a rotating brush (214) and cloth roller (212). The cloth roller has short fibre over its peripheral side. The cloth roller removes the static of the negative film and also removes the foreign material. The rotating brush removes the foreign material adhered on the cloth roller.

ADVANTAGE - Obtains high quality **printing** based on which magnetic information is read accurately. Removes foreign material adhered over long period, reliably.

Dwg.4/7

20/3,AB/12 (Item 10 from file: 350)
DIALOG(R)File 350:Derwent WPIX

010507728
WPI Acc No: 1996-004679/199601
XRPX Acc No: N96-004367
Electrophotographic **printers** for facsimile, word processor, computer - has fixing assembly with temperature detector connected to controller which manipulates delivery roller to transfer recording-paper to guide board of **printer part**
Patent Assignee: MURATA KIKAI KK (MURK)
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
JP 7281573	A	19951027	JP 9473161	A	19940412	199601	B

Priority Applications (No Type Date): JP 9473161 A 19940412
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 7281573	A		6	G03G-021/14	

Abstract (Basic): JP 7281573 A

The **printer** has a guide board (63a-63g) and a **printer part** (2) with a fixing assembly (26). A delivery roller sets a recording paper (K) with an **image** to the guide board of the **printer part**. The fixing **assembly** with a sensitisation object (20) heats the recording-paper.

A temperature detector (5) with a fixed temperature lower than that of the fixing assembly connects a controller (4). Upon reaching the set temperature of the detector, the controller manipulates the delivery roller to transfer the recording-paper to the guide board.

ADVANTAGE - Shortens **print** processing time.

Dwg.1/3

20/3,AB/13 (Item 11 from file: 350)
DIALOG(R)File 350:Derwent WPIX

010338110

WPI Acc No: 1995-240198/199531
XRPX Acc No: N95-187322
Photographic **printed** card mfr. - storing data, loading connected pre-**printed** photographs into laser **printer** and processing data such that some data is **printed** by laser **printer** over all **parts** of back of pre-**printed** photographs
Patent Assignee: CLARK J R (CLAR-I)
Inventor: CLARK J R
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 5428423	A	19950627	US 91798163	A	19911126	199531	B
			US 938076	A	19930122		
			US 93153492	A	19931117		

Priority Applications (No Type Date): US 93153492 A 19931117; US 91798163 A 19911126; US 938076 A 19930122
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 5428423	A		12	G03B-027/32	Cont of application US 91798163 CIP of application US 938076

Abstract (Basic): US 5428423 A

Photographic cards are made by **printing** a message directly on the reverse side of a photograph, in several configurations including singular cards, cards in sheet form, cards in roll form and cards in a new and improved continuous form with tractor feed selvedge strips and perforations for separating the photographs from each other and from the selvedge strips. Each configuration of photographic cards comprises developed photographs having a photographic **image** surface (32) on one side and a message **printed** directly on an **printing** surface (34) which is the reverse side of the photographic paper material (30) using a computer (22) with a **printer** (24) attached and controlled by a software (20) program used by a computer operator (18) to create and edit messages and control the **printing** of the messages.

USE/ADVANTAGE - Photographic card can be used for picture postcards such as for direct mail advertising, personal greeting cards for holidays, notices for family events of many different kinds and photographic identification and filing cards. Eliminates need for **assembling pieces** and cost of labour involved. Photographs can be singular, in sheet form or continuous. **Prints** name and address information and postal permit number along with message in one operation, eliminating generation of separate mailing labels, and applying postage.

Dwg.1/18

20/3,AB/14 (Item 12 from file: 350)
DIALOG(R)File 350:Derwent WPIX

009264318
WPI Acc No: 1992-391729/199248
XRPX Acc No: N92-298797
Indexing mechanism for compact scanner - transports sheet through scanner which then reads portion of document or **prints image** of **portion** of copy sheet
Patent Assignee: XEROX CORP (XERO)
Inventor: STEMMLE D J

Number of Countries: 005 Number of Patents: 006
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 515169	A2	19921125	EP 92304572	A	19920520	199248	B
JP 5167799	A	19930702	JP 92120804	A	19920513	199331	
US 5245447	A	19930914	US 91703083	A	19910520	199338	
EP 515169	A3	19940706	EP 92304572	A	19920520	199528	
EP 515169	B1	19961009	EP 92304572	A	19920520	199645	
DE 69214350	E	19961114	DE 614350	A	19920520	199651	
			EP 92304572	A	19920520		

Priority Applications (No Type Date): US 91703083 A 19910520
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 515169	A2	E	18	H04N-001/04	
US 5245447	A		17	H04N-001/40	
EP 515169	B1	E	20	H04N-001/04	
Designated States (Regional): DE FR GB					
DE 69214350	E			H04N-001/04	Based on patent EP 515169
JP 5167799	A			H04N-001/04	
EP 515169	A3			H04N-001/04	

Abstract (Basic): EP 515169 A

The scanner has a frame assembly (15) with a carriage (20) movably mounted in the assembly for scanning movement in a scanning path in a frist direction includes a sheet transport path with an indexer (46) to index a sheet through the path.

The indexer includes on index roll (46) mounted on a rotatable shaft having a barrel cam at one end which is actuated by the scanning carriage at the end of the scanning path to rotate the index roll a portion of a revolution.

ADVANTAGE - Requires only one single source of electromechanical power.

Dwg. 2/8

Abstract (Equivalent): EP 515169 B

A scanner comprising a frame assembly (15) comprising a carriage (20) movably mounted in said frame assembly (15) for scanning movement in a scanning path in a first direction (33a) along the length of said frame assembly (15), said frame assembly (15) providing and including at least one sheet transport path by including transport means (35,42,46,36) to index a sheet (13,14) through said path in a direction transverse to said first direction; said indexing means comprising at least one index roll (35,42,46) mounted on a rotatable shaft (36) having a barrel cam (39) at one end which is actuated by said scanning carriage (20) at the end of the scanning path to rotate said at least one index roll (35,42,46) a portion of a revolution.

(Dwg.2/8)

Abstract (Equivalent): US 5245447 A

A scanner has a frame assembly including a carriage movably mounted in the frame assembly for scanning movement in a scanning path in a first direction along the length of the frame assembly. The frame assembly includes at least one sheet transport path with an indexer to index a sheet through the path. The indexer includes at least one index roll mounted on a rotatable shaft having a barrel cam at one end which is actuated by the scanning carriage at the end of the scanning path to rotate the at least one index roll a portion of a revolution.

The read/write carriage (20) engages a ramp (48) on a toggling link (49) just before it reaches home position. This engagement and further motion of read/write carriage causes the toggling link to rotate about a pivot (50) and the other end of the toggle link lifts registration

positioning of motor vehicle seat segments. Has high level of user-friendliness and minimum number of working parts.
(Dwg.1/8

20/3,AB/16 (Item 14 from file: 350)
DIALOG(R)File 350:Derwent WPIX

007646009
WPI Acc No: 1988-279941/198840
Related WPI Acc No: 1989-368509
XRPX Acc No: N93-233621
Laser beam **printer** having three-point support system - comprises laser beam deflector, photosensitive member scanned by laser beam, frame for positioning deflector and photosensitive member, and **printer** base on which frame is mounted
Patent Assignee: CANON KK (CANO)
Inventor: KANOTO M; KIKUCHI Y; KOMORI S; SUGIURA Y
Number of Countries: 005 Number of Patents: 008
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 285139	A	19881005	EP 88105190	A	19880330	198840 B
US 5247316	A	19930921	US 88175354	A	19880330	199339
			US 89342807	A	19890425	
			US 90549246	A	19900709	
			US 90563851	A	19900807	
			US 91658432	A	19910220	
			US 91761723	A	19910918	
EP 285139	B1	19951011	EP 88105190	A	19880330	199545
DE 3854559	G	19951116	DE 3854559	A	19880330	199551
			EP 88105190	A	19880330	
US 5614992	A	19970325	US 88175354	A	19880330	199718
			US 90549246	A	19900709	
			US 9347619	A	19930416	
			US 95389974	A	19950214	
			US 96674198	A	19960701	
US 5640649	A	19970617	US 88175354	A	19880330	199730
			US 90537786	A	19900614	
			US 92963516	A	19921020	
			US 94253205	A	19940602	
US 5875374	A	19990223	US 88175354	A	19880330	199915
			US 90537786	A	19900614	
			US 92963516	A	19921020	
			US 94238048	A	19940504	
US 5909607	A	19990601	US 88175354	A	19880330	199929
			US 90549246	A	19900709	
			US 9347619	A	19930416	
			US 95389974	A	19950214	
			US 96674198	A	19960701	
			US 97811715	A	19970306	

Priority Applications (No Type Date): JP 8778033 A 19870331; JP 8778031 A 19870331; JP 88106844 A 19880428
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 285139	A	E	22		
Designated States (Regional): DE FR GB IT					
US 5247316	A		27	G01D-015/00	Cont of application US 88175354
					Cont of application US 89342807
					CIP of application US 90549246

				Cont of application US 90563851
				Cont of application US 91658432
EP 285139	B1 E	19	G03G-015/00	
Designated States (Regional): DE FR GB IT				
DE 3854559	G		G03G-015/00	Based on patent EP 285139
US 5614992	A	22	G03G-015/00	Cont of application US 88175354
				Cont of application US 90549246
				Cont of application US 9347619
				Cont of application US 95389974
US 5640649	A	22	G03G-015/00	Div ex application US 88175354
				Cont of application US 90537786
				Cont of application US 92963516
US 5875374	A		G03G-015/00	Div ex application US 88175354
				Cont of application US 90537786
				Div ex application US 92963516
US 5909607	A		G03G-015/00	Cont of application US 88175354
				Cont of application US 90549246
				Cont of application US 9347619
				Cont of application US 95389974
				Div ex application US 96674198
				Div ex patent US 5614992

Abstract (Basic): EP 285139 A

The apparatus comprises a main assembly including an **image** former. A recording material is conveyed, on which the **image** former forms an **image**. The conveying unit includes a recording material inlet, feeder and discharging outlet. The unit is supported on the main assembly for swinging movement towards and away from the assembly.

The **image** former is partly disposed adjacent the unit and is exposed when the unit is moved away from the assembly. The unit, when mounted to the assembly constitutes a passage for conveying the recording material in a vertical direction through the **image** formation portion.

USE/ADVANTAGE - Electrophotographic copier. Operativeness is improved during maintenance operations such as jam clearance and cartridge exchange.

Dwg.3/11

Abstract (Equivalent): EP 285139 B

An **image** forming apparatus, comprising: a main assembly including **image** forming means (15,36), and a conveying unit for conveying a recording material (P) on which said **image** forming means forms an **image**, said conveying unit including a recording material conveying unit including a recording material conveying means (4,17,21,29,19,20) being supported on the main assembly, wherein said **image** forming means is at least partly disposed adjacent to said conveying unit wherein said conveying unit, when mounted to said main assembly, constitutes a passage for conveying the recording material through said **image** forming means, wherein said conveying unit is, as a unit, separable substantially along the conveying passage from said main assembly, and wherein when said conveying unit is **separated**, a **part** constituting the conveying passage is exposed, characterised in that said conveying unit is swingable towards and away from said main assembly, and said conveying unit has a top wall of outer cover (K); that said conveying unit is swingable downwardly away from said main assembly so that said part of conveying passage is substantially exposed upwardly, and that said conveying unit is swingable to a front side where a recording material supplying inlet is provided.

(Dwg.3/9

Abstract (Equivalent): US 5640649 A

A process cartridge detachably mountable to a main assembly of an **image** forming apparatus, said process cartridge comprising:

a frame;

a photosensitive drum disposed inside said frame;

charging means for charging said photosensitive drum;

developing means for supplying developer to said photosensitive drum, said developing means having a developer container for containing the developer;

cleaning means for removing residual matter from said photosensitive drum, said cleaning means disposed above said developing means when said process cartridge is mounted to the main assembly, and said cleaning means having a residual matter container for accommodating residual matter removed from said photosensitive drum; and

guides, provided adjacent both longitudinal ends of said photosensitive drum, outwardly projecting from said frame in a longitudinal direction of said photosensitive drum, for guiding said process cartridge when said process cartridge is mounted to the **image** forming apparatus,

wherein, when said process cartridge is mounted to the main assembly, a light path, having a width extending in the longitudinal direction of said photosensitive drum and for permitting a laser beam corresponding to **image** information to reach said photosensitive drum, is formed by and between said developer container and said residual matter container through a side of said process cartridge that is a leading side when said process cartridge is being mounted to the **image** forming apparatus along said guides and which is a substantially vertical side when said process cartridge is mounted in place in the **image** forming apparatus.

Dwg.3,7/11

b

US 5614992 A

An **image** forming apparatus usable with recording material conveying means, said **image** forming apparatus comprising:

a main assembly including a first top wall and **image** forming means;

a conveying unit for partially supporting the recording material conveying means for conveying a recording material introduced from a recording material inlet to a recording material outlet through said **image** forming means, said conveying unit being supported on said main assembly adjacent a lower position for upward and downward swinging movements toward and away from said main assembly, respectively, said conveying unit having a second top wall, which is adjacent said first top wall of said main assembly to form an apparatus top wall of said apparatus with said first top wall,

wherein said **image** forming means is at least partly disposed adjacent to said conveying unit and is accessible when said conveying unit is moved away from said main assembly,

wherein said conveying unit, when mounted to said main assembly, constitutes a conveying passage for conveying the recording material substantially in a vertical direction through said **image** forming means,

wherein said conveying unit is, as a unit, separable substantially along the conveying passage from said main assembly, wherein when said conveying unit is separated from said main **assembly**, a **part** constituting the conveying passage is exposed, and

wherein the recording material inlet is disposed at a lower position, and the recording material outlet is disposed at an upper position,

a recording material stacking tray for stacking recording material thereon, which is rotatable between a closed position in which the recording material stacking tray is substantially upright adjacent said conveying unit and an open position in which the recording material stacking tray extends in a direction crossing with an extending direction of the conveying passage; and

separation feeding means having feeding rotary means actable on the recording material stacked on the recording material stacking tray to feed the recording material and separating means actable on the recording material stacked on the recording material stacking tray to permit one recording material to pass, wherein said feeding rotary means is supported on said conveying unit, and said separating means is supported on said main assembly, and when said conveying unit is moved away from said main assembly, said separating means is moved away from said rotary feeding means.

Dwg.3,7/11

20/3,AB/17 (Item 15 from file: 350)
DIALOG(R)File 350:Derwent WPIX

003867325
WPI Acc No: 1984-012853/198403
XRAM Acc No: C84-005412
XRPX Acc No: N84-009562
Self-adhesive lithographically-**printed** labels are equi-spaced on reel - being produced by die-cutting **printed** sheets applied to support web
Patent Assignee: INSTANCE D J (INST-I)
Inventor: INSTANCE D J
Number of Countries: 018 Number of Patents: 013
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 98092	A	19840111	EP 83303596	A	19830622	198403	B
GB 2122968	A	19840125	GB 8218496	A	19820625	198404	
ZA 8400194	A	19840807	ZA 84194	A	19840110	198449	
US 4488922	A	19841218	US 83506807	A	19830622	198505	
AU 8423176	A	19850718				198536	
GB 2122968	B	19850904				198536	
NO 8400076	A	19850805				198538	
DK 8400104	A	19850711				198542	
FI 8400073	A	19850710				198542	
US 4560432	A	19851224	US 84657167	A	19841003	198603	
CA 1198921	A	19860107				198610	
EP 98092	B	19861203				198649	
DE 3368030	G	19870115				198703	

Priority Applications (No Type Date): GB 8218496 A 19820625; ZA 84194 A 19840110
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 98092	A	E	19		
Designated States (Regional): AT BE CH DE FR GB IT LI LU NL SE					
EP 98092	B	E			
Designated States (Regional): AT BE CH DE FR GB IT LI LU NL SE					

Abstract (Basic): EP 98092 A

In a method of producing a reel on a continuous strip of release backing material, sheets carrying the desired **printed image**

are adhered in succession to the upper surface of a support web of self-adhesive material carried on the release material. The labels are formed by cutting through the sheets and the adhesive-backed material as far as the release material to remove unwanted peripheral portions which are wound to waste. Opt. prior to cutting, a transparent plastic film, e.g., polyester is laminated over the **printed** sheets.

To obtain sheet adherence, either the upper surface of the web or the rear of each sheet can be coated with a heat sealable lacquer followed by passage between heated rollers. Alternatively, an applicator may apply contact adhesive to the web or the back of each sheet and downstream pressure means used to bring sheets and web into contact. The sheet may be transferred to the web using rotary indexable arms carrying vacuum-actuated suction pads, a reciprocating carriage, or a stream feeder.

Method produces a reel of self-adhesive labels having multi-coloured **images** of high quality. The labels are equi-spaced, accurately aligned on the reel, and do not suffer from surplus adhesive around their peripheries, all three factors facilitating their use in automatic label dispensers.

0/3

Abstract (Equivalent): EP 98092 B

A method of producing a succession of self-adhesive labels (32) on a length of release backing material (16), which method comprises the steps of: (a) producing by **printing** a plurality of sheets (4) carrying a desired **image**, and (b) adhering each of the **printed** sheets (4) successively to a support web (6) comprising a self-adhesive backed material (14) carried on a release backing material (16), the **printed** sheets (4) being adhered to the upper surface of the adhesive backed material (14), characterised in that the method further comprises the steps of: (c) cutting through the adhered sheets (4) and through the adhesive-backed material (14) as far as the release backing material (16) thereby to form the required labels (32), and (d) removing the unwanted portions (28) of the **printed** sheets (4) and the adhesive-backed material (14) adhered thereto from the release backing material (16), and in that in step (a) the desired **image** is produced by lithographic **printing** such that the resultant self-adhesive labels (32) are lithographically-**printed**.

(10pp

Abstract (Equivalent): GB 2122968 B

A method of producing a succession of lithographically-**printed** self-adhesive labels on a length of release backing material, which method comprises the steps of: (a) producing by lithographic **printing** a plurality of sheets carrying a desired **image**, (b) adhering each of the lightographically-**printed** sheets successively to a support web comprising a self-adhesive backed material carried on a release material, the **printed** sheets being adhered to the upper surface of the adhesive backed material, (c) cutting through the adhered lithographic sheets and through the adhesive-backed material as far as the release material thereby to form the required labels, and (d) removing the unwanted **portions** of the **printed** sheets and the adhesive-backed material adhered thereto from the release material.

Abstract (Equivalent): US 4560432 A

Appts. for producing lithographically **printed** self-adhesive labels on a length of release backing has a transfer unit passing individual **printed** sheets from a stack to a support web of self-adhesive backed material on a release backing, an applicator coating sheets or web with adhesive before bringing them into contact, and a unit for removing unwanted **parts** of the **assembly**.

The finished strip is pref. wound into a reel. The assembled sheets and web are pref. passed through a pressure applicator for secure attachment, and where the adhesive is heat-sealable lacquer, the pressure is applied by pairs of heated rollers for simultaneous lacquer activation. The sheets may be transferred by rotary arms with suction pads, a reciprocable carriage with suction pads, or a stream feeder.

USE/ADVANTAGE - For labels to be continuously applied to containers, provides economic and efficient prodn.

(6pp)

US 4488922 A

Lithographically-**printed** self adhesive labels are produced by adhering **printed** sheets successively to a self-adhesive backed material carried on a release material, and cutting the sheets and the backed material as far as the release material. The unwanted portions of the sheets are removed. The release material carrying the labels is pref. wound onto a reel.

ADVANTAGE - High quality **images** can be produced.

(6pp

20/3,AB/20 (Item 3 from file: 347)
DIALOG(R)File 347:JAPIO

06745054
SYSTEM AND METHOD FOR DATA PROCESSING, AND STORAGE MEDIUM

PUB. NO.: 2000-330908 [JP 2000330908 A]
PUBLISHED: November 30, 2000 (20001130)
INVENTOR(s): SHIMIZU NAOYUKI
APPLICANT(s): NEC CORP
APPL. NO.: 11-137994 [JP 99137994]
FILED: May 19, 1999 (19990519)

ABSTRACT

PROBLEM TO BE SOLVED: To perform a page layout process according to the capacity of recording paper, etc., of a selected **printer** when a homepage is **printed** and to obtain an excellent **print** result which is free of deficiency of an **image** by obtaining the **printer** capacity of the **printer** from a **printer** driver control means and editing layouts by pages.

SOLUTION: An ML source editing part 5 is provided between an ML source management part, 2 and a browse display control part 3. This ML source editing part 5 when displaying the contents of an ML source obtains the capacity of the **printer** from the **printer** driver **part** 4 and edits layouts by pages so that the **pages** are **put** in recording paper, and edits and generates a new ML source from the original ML source and passes it to the browse display control part 3 upon occasion. Consequently, the contents of the ML source can be edited and displayed and when the editing contents are **printed** on the **printer** 7 through the **printer** driver **part** 4, a layout based upon the capacity of the **printer** 7 is given.

20/3,AB/21 (Item 4 from file: 347)
DIALOG(R)File 347:JAPIO

06500295
DEFORMED SHEET DETECTING DEVICE AND **IMAGE** FORMING DEVICE WITH DEFORMED SHEET DETECTING DEVICE

PUB. NO.: 2000-086010 [JP 2000086010 A]
PUBLISHED: March 28, 2000 (20000328)
INVENTOR(s): MURAYAMA YASUSHI
APPLICANT(s): CANON INC
APPL. NO.: 10-254397 [JP 98254397]
FILED: September 08, 1998 (19980908)

ABSTRACT

PROBLEM TO BE SOLVED: To form a high quality **image** on a sheet by detecting a deformed sheet pressing means when spaced from a sheet guide face by the specified distance or more by a deformed sheet guided by the sheet guide face.

SOLUTION: When recording paper in a lifted state reaches a clearance between a spur and a conveyor belt 308, the recording paper comes in contact with the spur, and the spur continues to rotate. At this time, lifting of the recording paper is suppressed by the energizing force of a spur holder. That is, when the deformation of the recording paper is within a correctable degree, the recording paper pressed by the spur is put in a normal state, that is, the lifted quantity is reduced to a clearance (d) or less, and a **printing part** is **put** in normal action to form each color **image** in regular succession to complete. In the case of failing to suppress lifting even with the energizing force of the spur holder 63, the spur holder 63 swings around the center S of swing due to the lifting of the recording paper. A microswitch 64 which is a swing detecting means is pressed by this swing to switch on a circuit, and a deformation detecting device 11 immediately stops **printing** action.

20/3,AB/22 (Item 5 from file: 347)
DIALOG(R)File 347:JAPIO

05956868
DEVELOPING DEVICE IN **IMAGE** FORMING DEVICE AND TONER CARTRIDGE USED FOR THE DEVELOPING DEVICE

PUB. NO.: 10-239968 [JP 10239968 A]
PUBLISHED: September 11, 1998 (19980911)
INVENTOR(s): MAKINO KAZUNORI
APPLICANT(s): BROTHER IND LTD [000526] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 09-045920 [JP 9745920]
FILED: February 28, 1997 (19970228)

ABSTRACT

PROBLEM TO BE SOLVED: To provide a developing device in an **image** forming device, capable of saving the handling time at the time of **assembling** a stirring **part** in a toner cartridge and surely preventing the leakage of toner, etc., by preventing the rotation of a soft member for a seal in the toner cartridge.

SOLUTION: In a laser **printer**, the stirring **part** in the toner cartridge is rotated to stir the toner in the toner cartridge and the toner is supplied from a toner supplying port, to form an **image** by an electrophotographic process. The toner cartridge is provided with an opening 230 and an engaging recessed part 302 for rotating the stirring part and a flange 304 are inserted into the opening 230. The soft member 306 for the seal is attached to closely stick to the engaging recessed part 302, etc., and a member 309 having a sucker effect is provided in the contact surface of the soft member 306 for the seal coming into contact with the inside surface of the cartridge.

20/3,AB/23 (Item 6 from file: 347)
DIALOG(R)File 347:JAPIO

05830984
IMAGE FORMING APPARATUS AND **PRINT** HEAD USED IN APPARATUS

PUB. NO.: 10-114084 [JP 10114084 A]
PUBLISHED: May 06, 1998 (19980506)
INVENTOR(s): TAKAHASHI YOSHIHIRO
APPLICANT(s): CANON INC [000100] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 08-268237 [JP 96268237]
FILED: October 09, 1996 (19961009)

ABSTRACT

PROBLEM TO BE SOLVED: To perform quantities of **printing** continuously at a high speed by installing a liquid supply means which supplies liquid in a liquid tank at a liquid supply position on one end side in the scanning movement direction of a carriage.

SOLUTION: A guide rod 13 is engaged with a carriage 14, a **print** head having a liquid holding part 18 is mounted on the carriage 14. A liquid tank 24 and a liquid supply means 19 adjoining to the tank 24 are installed on one end side of the rod 13. When liquid 17 is supplied to the **part** 18, the **print** head is moved to a liquid supply position, a plunger 20 above the part 18 is inserted into a plunger insertion hole 21, a liquid storage part 26 is moved to the **print** head side with the tank 24, and a liquid supply/discharge nozzle 22 is **put** into the **part** 26 from an opening 25. Moreover, the plunger 20 is pushed into the part 18, after a porous elastomer 23 being compressed, the plunger is pulled up, and liquid 17 is sucked from the nozzle 22 into the part 18.

20/3,AB/24 (Item 7 from file: 347)
DIALOG(R)File 347:JAPIO

05491647
PALM **PRINTING** DEVICE

PUB. NO.: 09-106447 [JP 9106447 A]
PUBLISHED: April 22, 1997 (19970422)
INVENTOR(s): TAGAWA TOMOHIKO
APPLICANT(s): FUJITSU DENSO LTD [470928] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 07-263780 [JP 95263780]
FILED: October 12, 1995 (19951012)

ABSTRACT

PROBLEM TO BE SOLVED: To speed-up positioning in palm **printing** in relation to a palm **printing** device for **printing** a palm **print**.

SOLUTION: This palm **printing** device is provided with a camera 1 for picking-up the **image** of a palm **print** which picks-up the **image** of the palm on a **printing part** by means of a prism 3, etc., by scanning by means of a high-definition one-dimensional line sensor, a picture processing part 7, a display part 9 and a control part 8. The device is provided with a positioning camera 2 provided with a two-dimensional sensor picking-up the **image** of the palm on the **printing part** at the same time with the camera 1 or by switching both camera, a switching part 10 which so switches as to add a picture processing part 7 with the **image** pickup signal of the camera 2 in positioning on the basis of a positioning frame 9a at the display **part** 9 and **add** the picture processing part 7 with the **image** pickup signal of the camera after positioning according to the

03156326
PART HOLDING DEVICE

PUB. NO.: 02-131826 [JP 2131826 A]
PUBLISHED: May 21, 1990 (19900521)
INVENTOR(s): UCHIYAMA TAKASHI
APPLICANT(s): TOKICO LTD [000305] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 63-280134 [JP 88280134]
FILED: November 05, 1988 (19881105)
JOURNAL: Section: M, Section No. 1007, Vol. 14, No. 364, Pg. 142, August 07, 1990 (19900807)

ABSTRACT

PURPOSE: To correct the position of an electronic part in accordance with the position of an insertion hole of a **printed** board by providing a means for photographing the electronic part and the insertion hole of the **printed** board by an **image** pick-up camera in a part-holding device for **assembling** electronic **parts** to the **printed** board.

CONSTITUTION: A part-holding device 1 consists of a device body 3 having a holding mechanism 2, a moving mechanism 4 provided movably in the direction of the arrows A,B, an **image** pick-up camera 5 held at the side of the device body 3 by the moving mechanism 4 as an **image** input device, and a prism mechanism 7 for directing an incident light from an electronic part 6 or a **printed** board 16 to the **image** pick-up camera 5. When a frame 13 is moved in the direction of the arrow B after the electronic part 6 is clamped by operating the holding mechanism 2, a reflected light from the electronic part 6 is passed, through a lens part 5a via prisms 7b, 7a, the tip shape of a lead is photographed by the camera 5. When the prism 7b is rotated 90 degrees, a reflected light from an insertion hole of the **printed** board 16 is made incident, so that the shape of the insertion hole is photographed.

20/3,AB/29 (Item 12 from file: 347)
DIALOG(R)File 347:JAPIO

02857870
PASSBOOK AND SLIP PROCESSOR

PUB. NO.: 01-155470 [JP 1155470 A]
PUBLISHED: June 19, 1989 (19890619)
INVENTOR(s): KATAOKA TATSUFUMI
KOSHIDAKA TERU
KAMATA HIDEO
HIROOKA TAKAAKI
YASUDA MASAMI
INAOKA HIDEYUKI
APPLICANT(s): FUJITSU LTD [000522] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 62-314484 [JP 87314484]
FILED: December 11, 1987 (19871211)
JOURNAL: Section: P, Section No. 934, Vol. 13, No. 424, Pg. 57, September 21, 1989 (19890921)

ABSTRACT

24/3,AB/1 (Item 1 from file: 2)
DIALOG(R)File 2:INSPEC

7003549 INSPEC Abstract Number: B2001-09-2210D-017
Title: Practical ideas on large-board **printing**
Author(s): Glasgow, J.
Author Affiliation: Surface Mount Tech., Laguna Hills, CA, USA
Journal: Surface Mount Technology vol.15, no.6 p.42-4
Publisher: PennWell Publishing,
Publication Date: June 2001 Country of Publication: USA
CODEN: SMTEEL ISSN: 0893-3588
SICI: 0893-3588(200106)15:6L.42:PILB;1-H
Material Identity Number: N547-2001-007
Language: English
Abstract: Large-panel boards, i.e. individual boards 24*28" and larger, began appearing in the industry more than five years ago. Though this trend began as a trickle, it has become a virtual flood, now featuring ultra-large **printed** circuit boards (PCBs) of many layers, sometimes 0.5" thick and heavy. Nor are they especially all backplanes or backpanels. The vast majority are simply PCBs: large motherboards, high-density, SMT, through-hole and mixed technology. The **large size** of these boards is, in **part**, driven by electrical, packaging, thermal and cost considerations; but whatever the reason, these boards present an entirely new slate of concerns in processing, in this case, stencil **printing**. Naturally, it has become necessary for equipment manufacturers, from **printing** , to pick-and-place and onward, to redesign their equipment to accommodate these larger sizes. This article discusses issues involved in production **printing** of large-panel circuit boards from the perspective of the solder paste stencil **printer** manufacturer.
Subfile: B

24/3,AB/2 (Item 2 from file: 2)
DIALOG(R)File 2:INSPEC

5009800 INSPEC Abstract Number: B9509-0170J-026
Title: Optimization of technological choices in SMT with respect to thermomechanical stresses
Author(s): Fenech, A.; Plano, B.; Lavigne, N.; Nicolas, G.; Navarro, D.; Hijazi, A.; Danto, Y.; Salagoity, M.; Materne, A.; Castillan, P.
Author Affiliation: CNRS, Bordeaux I Univ., Talence, France
Conference Title: Sixteenth IEEE/CPMT International Electronics Manufacturing Technology Symposium. 'Low-Cost Manufacturing Technologies for Tomorrow's Global Economy'. Proceedings 1994 IEMT Symposium (Cat. No.94CH3473-6) Part vol.1 p.86-92 vol.1
Publisher: IEEE, New York, NY, USA
Publication Date: 1994 Country of Publication: USA 2 vol. (xii+404+viii+104) pp.
ISBN: 0 7803 2037 9
U.S. Copyright Clearance Center Code: 0 7803 2037 9/94/$3.00
Conference Title: Proceedings of 16th IEEE/CPMT International Electronic Manufacturing Technology Symposium
Conference Sponsor: Electron. Ind. Assoc.; IEEE Components Packaging & Manuf. Technol. Soc
Conference Date: 12-14 Sept. 1994 Conference Location: La Jolla, CA, USA
Language: English

Abstract: With the development of large scale integration technologies, leading to **large size** chips, a large increase of package dimensions and of number of leads, with thinner and thinner pitch, is observed in SMT. This evolution clearly involves higher criticity at the solder joint level, when electronic boards are submitted to thermal variations. The thermal expansion mismatch between the different **parts** of the structure, including package, lead, solder and substrate may generate high level stresses in the solder, leading to mechanical fatigue, cracks and failures. In order to evaluate and to compare the effects of lead stiffness on the solder behaviour of different types of **assemblies** , we have proposed a simple analytical model for each type of lead, taking in account the geometry of the components (package and leads), the Young modulus of the lead material, and the variation of temperature.

Subfile: B

24/3,AB/3 (Item 3 from file: 2)
DIALOG(R)File 2:INSPEC

4970950 INSPEC Abstract Number: B9507-0170J-051

Title: Placement technology and quality evaluation of new devices

Author(s): Hattas, D.

Author Affiliation: Panasonic Factory Automation Co., Franklin Park, IL, USA

Journal: Surface Mount Technology vol.9, no.2 p.50, 52, 54

Publication Date: Feb. 1995 Country of Publication: USA

ISSN: 0893-3588

U.S. Copyright Clearance Center Code: 0893-3588/95/$1.00+50

Language: English

Abstract: Fine-pitch devices, once talked of in theoretical terms, are now discussed as candidates for industry standardization. Equipment manufacturers are meeting the challenge of diversified placement with systems that handle a variety of SMDs. To accommodate the growing variety of **parts** to be placed, a range of handlers employing various placement methods has been designed. This article discusses packaging technologies with preformed leads which are suitable for fine pitch placement applications, such as guardring QFPs (GQFP), test pad QFPs (TPQ) and ball grid arrays (BGA). The rapid change of **large size** connectors for industrial applications from through-hole to surface mount design is also addressed, as is fine pitch solder joint quality, solder paste **printing** for QFPs, and future trends in bare chip **assembly**.

Subfile: B

24/3,AB/4 (Item 4 from file: 2)
DIALOG(R)File 2:INSPEC

04212831 INSPEC Abstract Number: B9209-2210D-032, C9209-3355F-017

Title: Heuristic and simulated annealing approaches to PCB **assembly** setup reduction

Author(s): Hashiba, S.; Chang, T.C.

Author Affiliation: Production Syst. Dev. Lab., NEC Corp., Kanagawa, Japan

Journal: IFIP Transactions B (Applications in Technology) vol.B-3

p.769-77
Publication Date: 1992 Country of Publication: Netherlands
ISSN: 0926-5481
Conference Title: Human Aspects in Computer Integrated Manufacturing. IFIP TC5/WG 5.3 Eighth International PROLAMAT Conference. Man in CIM
Conference Sponsor: IFIP
Conference Date: 24-26 June 1992 Conference Location: Tokyo, Japan
Language: English
Abstract: Modern PCB **assembly** is characterized by small batch production of wide product diversity. Since each component type on a PCB must occupy one component feeder on an **assembly** machine, when the PCB batch is changed, the component feeders must be re-setup. Therefore, the setup time often occupies the largest **part** of the **assembly** lead time. The problem of finding the minimum number of setups is thought of as a combinatorial optimizing problem and this problem can be formulated as an integer programming (IP). However, this setup minimization problem can be shown to be NP-complete, and this IP model is computationally intractable for a practical problem size of hundreds of components. The authors propose some methods which have been shown to provide satisfactory results. First, the whole setup reduction problem is decomposed into three sub-problems and a heuristic method is applied to each individual sub-problem. Next, a simulated annealing based method with an embedded component assignment heuristic is introduced. These two methods are compared in terms of the accuracies of their solutions and the required computational efforts. Both methods are applicable even to **large size** instances which can be seen in a real industrial environment.
Subfile: B C

24/3,AB/5 (Item 5 from file: 2)
DIALOG(R)File 2:INSPEC

03722369 INSPEC Abstract Number: C90064747
Title: EMS memory under pressure (**printer** spooler using expanded memory)
Author(s): Ghinz, M.
Journal: Mikrocomputer Zeitschrift no.7 p.114-16, 118-19
Publication Date: July 1990 Country of Publication: West Germany
CODEN: MDMZDL ISSN: 0720-4442
Language: German
Abstract: The author presents a **printer** program called SPOOL that stores **oversized print** jobs in that **part** of the memory not used by DOS. The computer must be an AT whose memory space above the 640 kbyte DOS limit can be turned into an expanded memory. The author's program is resident in the DOS memory and stores in the expanded memory the data sent by the applications program to the **printer**. (A second program called SPL allows this data to be diverted away from the **printer** and e.g. stored.) The author reproduces the **assembly** language program listing for SPOOL.ASM and the SPL.PAS Pascal program listing.
Subfile: C

24/3,AB/6 (Item 1 from file: 6)
DIALOG(R)File 6:NTIS

2144418 NTIS Accession Number: PB99-177545/XAB
Komatsu Technical Report, Vol. 43, No. 2, 1997